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TOLER LAW GROUP 8500 BLUFFSTONE COVE SUITE A201 AUSTIN, TX 78759			EXAMINER PATEL, HEMANT SHANTILAL	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/796,400	Applicant(s) CHANG, HISAO M.	
	Examiner Hemant Patel	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-13 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 11-13 and 31-34 is/are allowed.
- 6) ☒ Claim(s) 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicant Response dated October 10, 2007 to an Office Action dated July 13, 2007 is entered. Claims 1-9, 11-13, 31-37 are pending in this application.

Response to Arguments

2. Applicant's arguments filed October 10, 2007 have been fully considered but they are not persuasive.
3. **Regarding claim 35**, the Applicant has argued that "Neither *Crockett* nor *Brown* discloses an enterprise voice service platform that provides hosted auto-attendant voice services for multiple enterprises. For example, neither *Crockett* nor *Brown* disclose "an enterprise voice service platform to store the dynamically constructed grammars from a first remote enterprise information system in a first directory and from a second remote enterprise system in a second directory", as recited in claim 35. Similarly, neither *Crockett* nor *Brown* discloses "the enterprise voice service platform to provide a first voice service to a first set of incoming calls based on the first directory and a second voice service to a second set of incoming calls based on the second directory", as recited in claim 35" (Remarks, Pg. 9, Paragraph 2). The Examiner respectfully disagrees. *Crockett* clearly teaches that VXML platform provides services to subscribers of Centrex System or a PBX system or an electronic key telephone system (EKTS) (*Crockett*, Paragraph 0086). These systems are used by enterprises to provide telecommunication services to their employees and customers as was well known in the art. Furthermore, the VXML platform retrieves these user specific data from numerous

web servers over the Internet to provide the user specific AIN services (Crockett, Paragraphs 0106-0109). Thus, VXML platform clearly hosts voice services for different enterprises according to voice directories in VXML format generated from data retrieved in HTTP or XML format from these different enterprises (Crockett, Paragraph 0124).

Response to Amendment

4. Applicant's arguments with respect to claims 1-9, 11-13, 31-34, 37 have been considered but are moot in view of the new ground(s) of rejection. The rejections are necessitated due to claim amendments.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crockett (US Patent Application Publication No. 2004/0141596 A1), and further in view of Brown (US Patent No. 6,587,822 B2).

Regarding claim 35, Crockett teaches of a system comprising:

a gateway responsive to a public telephone network (Fig. 1, item 42; Paragraph 0099, communication between calling party and VXML platform enabled and controlled by VXML interpreter 42);

a data connector responsive to a public network to receive data from remote enterprise information systems and to dynamically construct grammars from the received data (Paragraphs 0123-0124, 0150, HTTP to receive HTML and XML data documents from remote enterprise information system Fig. 1, item 35 via public network Fig. 1, item 60 and to process the received data to construct grammars for use by the enterprise voice directory and the database of voice directory grammars i. e. HTML documents reformatted to include voice markups to be used by text-to-speech to provide menus, forms and prompts); and

an enterprise voice service platform to store the dynamically constructed grammars (Fig. 1, items 40, 46, 47) from a first remote enterprise information system in a first directory (directory number of a user of web server 35) and from a second remote enterprise system in a second directory (directory number of another user of another web server 35, the system provides numerous web servers Paragraph 0106), the

enterprise voice service platform to provide a first voice service to a first set of incoming calls based on the first directory and a second voice service to a second set of incoming calls based on the second directory (Paragraph 0138, the voice services provided by the system are individually based on calling party and called directory number).

Crockett teaches of converting received data in enterprise data format (HTML) to internal data format suitable for use by VXML platform, but Crockett does not teach of converting received enterprise data format to common data format, and using a data processor to construct grammars from the common data format.

However, in the same field of endeavor, Brown teaches of voice-operated system wherein data connectors (Fig. 2, item 110 with item 112; col. 3, ll. 39-52; connectors for HTML, PML) receive enterprise data format from an enterprise data repositories (col. 3, ll. 33-35, 43-52) and convert it to internal format (col. 3, ll. 39-42; output of parser) suitable to construct voice directory (col. 3, ll. 60-64), and a grammar generator (data processor; Fig. 2, item 120) coupled to the voice directory (col. 6, ll. 8-18) and coupled to the data connector (Fig. 2, items 110 with item 112) constructs the grammar (voice directory) from the common data format (output of parser) (col. 3, ll. 60-64; col. 5, ll. 60-col. 6, ll. 18; col. 6, ll. 30-40; construct grammar from the output of parser) (col. 11, ll. 59-col.13, ll. 36)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Crockett to use data connectors to receive data in enterprise format and convert it to internal common format for use by the grammar generator to construct grammar (voice directory) as taught by Brown so that "a user can

program applications which utilize the IVR platform 102 by simply writing HTML, PML or other types of web pages, while obtaining the IVR platform service from an ISP which owns that platform, the small business or individual user does not need to make any large investment in equipment" (Brown, col. 13, ll. 46-51) by using an industry standard grammar generator (Brown, col. 11, ll. 60-col. 12, ll. 6).

Regarding claim 36, Crockett teaches of a system wherein the data connector is adapted to receive updated data from the remote enterprise information systems and to dynamically update the dynamically constructed grammars based on the received updated data (Paragraphs 0170-0172, subscriber creates or modifies a script which the web server 35 serves as HTML documents to VXML platform, these scripts are reformatted into XML including voice markups by an application server of VXML platform and once approved by the subscriber are stored for use during call processing).

Regarding claim 37, Crockett teaches of a system comprising:

a data connector (HTTP) responsive to one or more remote enterprise information systems (Paragraphs 0106, numerous web servers 35) to receive data via a public network (Fig. 1, item 60) and to process the received data, the data connector to construct grammars to produce an enterprise voice directory for each of the one or more remote enterprise information systems (Paragraphs 0123-0124, 0150, to receive HTML and XML data documents from remote enterprise information system Fig. 1, item 35 via public network Fig. 1, item 60 and to process the received data to construct grammars for use by the enterprise voice directory and the database of voice directory

grammars i. e. HTML documents reformatted to include voice markups to be used by text-to-speech to provide menus, forms and prompts); and

a voice activated auto-attendant (Fig. 1, item 40 VXML platform with VXML interpreter 42) to host the enterprise voice directory of each of the one or more remote enterprise information systems (Fig. 1, items 46, 47 storing each individual subscriber specific speech, menu, prompt etc. information for subscribers from different web servers 35 used by different enterprises), the voice activated auto-attendant to receive an incoming telephone call directed to a called number and to process the telephone call using the enterprise voice directory associated with the called number (Paragraph 0138, the voice services provided by the system are individually based on calling party and called directory number).

Crockett teaches of converting received data in enterprise data format (HTML) to internal data format suitable for use by VXML platform and generating voice directory with each directory (each subscriber directory entry) linking with at least one other entry (pointing to specific subscribed services) (Paragraphs 0112-0114; using called directory number and linking specific service and its voice menus and forms for this called directory number), but Crockett does not teach of converting received enterprise data format to common data format, and using a data processor to construct grammars from the common data format.

However, in the same field of endeavor, Brown teaches of voice-operated system wherein data connectors (Fig. 2, item 110 with item 112; col. 3, ll. 39-52; connectors for HTML, PML) receive enterprise data format from an enterprise data repositories (col. 3,

ll. 33-35, 43-52) and convert it to internal format (col. 3, ll. 39-42; output of parser) suitable to construct voice directory (col. 3, ll. 60-64), and a grammar generator (data processor; Fig. 2; item 120) coupled to the voice directory (col. 6, ll. 8-18) and coupled to the data connector (Fig. 2, items 110 with item 112) constructs the grammar (voice directory) from the common data format (output of parser) (col. 3, ll. 60-64; col. 5, ll. 60-col. 6, ll. 18; col. 6, ll. 30-40; construct grammar from the output of parser) (col. 11, ll. 59-col.13, ll. 36)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Crockett to use data connectors to receive data in enterprise format and convert it to internal common format for use by the grammar generator to construct grammar (voice directory) as taught by Brown so that "a user can program applications which utilize the IVR platform 102 by simply writing HTML, PML or other types of web pages, while obtaining the IVR platform service from an ISP which owns that platform, the small business or individual user does not need to make any large investment in equipment" (Brown, col. 13, ll. 46-51) by using an industry standard grammar generator (Brown, col. 11, ll. 60-col. 12, ll. 6).

8. Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crockett (US Patent Application Publication No. 2004/0141596 A1), and further in view of Jones (US Patent No. 6,804,330 B1).

Regarding claim 35, Crockett teaches of a system comprising:

a gateway responsive to a public telephone network (Fig. 1, item 42; Paragraph 0099, communication between calling party and VXML platform enabled and controlled by VXML interpreter 42);

a data connector responsive to a public network to receive data from remote enterprise information systems and to dynamically construct grammars from the received data (Paragraphs 0123-0124, 0150, HTTP to receive HTML and XML data documents from remote enterprise information system Fig. 1, item 35 via public network Fig. 1, item 60 and to process the received data to construct grammars for use by the enterprise voice directory and the database of voice directory grammars i. e. HTML documents reformatted to include voice markups to be used by text-to-speech to provide menus, forms and prompts); and

an enterprise voice service platform to store the dynamically constructed grammars (Fig. 1, items 40, 46, 47) from a first remote enterprise information system in a first directory (directory number of a user of web server 35) and from a second remote enterprise system in a second directory (directory number of another user of another web server 35, the system provides numerous web servers Paragraph 0106), the enterprise voice service platform to provide a first voice service to a first set of incoming calls based on the first directory and a second voice service to a second set of incoming calls based on the second directory (Paragraph 0138, the voice services provided by the system are individually based on calling party and called directory number).

Crockett teaches of converting received data in enterprise data format (HTML) to internal data format suitable for use by VXML platform, but Crockett does not teach of

converting received enterprise data format to common data format, and using a data processor to construct grammars from the common data format.

However, in the same field of endeavor, Jones teaches of voice-operated system wherein data connectors (Fig. 9, item 151 with item 153; col. 17, ll. 31-35) receive enterprise data format from an enterprise data repositories (col. 6, ll. 5-25; col. 17, ll. 22-24) and convert it to internal format suitable to construct voice directory (col. 17, ll. 36-46; converting into strings acceptable to compilation server used by grammar generator), and a grammar generator (data processor; Fig. 9, item 155) coupled to the voice directory (Fig. 10, item 20) and coupled to the data connector (Fig. 9, items 151 with item 153) constructs the grammar (voice directory) from the common data format (col. 17, ll. 47-col. 18, ll. 7; construct grammar from the output of homophone generator) (col. 18, ll. 8-col.19, ll. 22)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Crockett to use data connectors to receive data in enterprise format and convert it to internal common format for use by the grammar generator to construct grammar (voice directory) as taught by Jones in order to "enable the mobile professional to access data from virtually any location, such as via a wireless phone" (Jones, col. 1, ll. 50-52), and "enable users to access a wide variety of different data types from a telephone, whereby the user could perform ad hoc queries and access user- or company-specific information that has been stored in a database by the user or others known to the user rather than an institution that maintains the database" (Jones, col. 1, ll. 64-col. 2, ll. 2), and enable "a user of a phone 10 to access data stored

in a CRM database 12 from a remote location using verbal commands" (Jones, col. 5, ll. 13-15) so that "Users may also interactively initiate a phone call to selected contacts, accounts, and/or employees through the system while participating in a user session" (Jones, col. 2, ll. 48-51).

Regarding claim 36, Crockett teaches of a system wherein the data connector is adapted to receive updated data from the remote enterprise information systems and to dynamically update the dynamically constructed grammars based on the received updated data (Paragraphs 0170-0172, subscriber creates or modifies a script which the web server 35 serves as HTML documents to VXML platform, these scripts are reformatted into XML including voice markups by an application server of VXML platform and once approved by the subscriber are stored for use during call processing).

Regarding claim 37, Crockett teaches of a system comprising:

a data connector (HTTP) responsive to one or more remote enterprise information systems (Paragraphs 0106, numerous web servers 35) to receive data via a public network (Fig. 1, item 60) and to process the received data, the data connector to construct grammars to produce an enterprise voice directory for each of the one or more remote enterprise information systems (Paragraphs 0123-0124, 0150, to receive HTML and XML data documents from remote enterprise information system Fig. 1, item 35 via public network Fig. 1, item 60 and to process the received data to construct grammars for use by the enterprise voice directory and the database of voice directory

grammars i. e. HTML documents reformatted to include voice markups to be used by text-to-speech to provide menus, forms and prompts); and

a voice activated auto-attendant (Fig. 1, item 40 VXML platform with VXML interpreter 42) to host the enterprise voice directory of each of the one or more remote enterprise information systems (Fig. 1, items 46, 47 storing each individual subscriber specific speech, menu, prompt etc. information for subscribers from different web servers 35 used by different enterprises), the voice activated auto-attendant to receive an incoming telephone call directed to a called number and to process the telephone call using the enterprise voice directory associated with the called number (Paragraph 0138, the voice services provided by the system are individually based on calling party and called directory number).

Crockett teaches of converting received data in enterprise data format (HTML) to internal data format suitable for use by VXML platform and generating voice directory with each directory (each subscriber directory entry) linking with at least one other entry (pointing to specific subscribed services) (Paragraphs 0112-0114; using called directory number and linking specific service and its voice menus and forms for this called directory number), but Crockett does not teach of converting received enterprise data format to common data format, and using a data processor to construct grammars from the common data format.

However, in the same field of endeavor, Jones teaches of voice-operated system wherein data connectors (Fig. 9, item 151 with item 153; col. 17, ll. 31-35) receive enterprise data format from an enterprise data repositories (col. 6, ll. 5-25; col. 17, ll. 22-

24) and convert it to internal format suitable to construct voice directory (col. 17, ll. 36-46; converting into strings acceptable to compilation server used by grammar generator), and a grammar generator (data processor; Fig. 9, item 155) coupled to the voice directory (Fig. 10, item 20) and coupled to the data connector (Fig. 9, items 151 with item 153) constructs the grammar (voice directory) from the common data format (col. 17, ll. 47-col. 18, ll. 7; construct grammar from the output of homophone generator) (col. 18, ll. 8-col.19, ll. 22), and each entry in the voice directory (Fig. 14, item 226) containing at least one link to another entry in the enterprise directory (Fig. 14, item 226 E-USERID linking to another entry ENTERPRISE_USERS item 204 in the enterprise directory).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Crockett to use data connectors to receive data in enterprise format and convert it to internal common format for use by the grammar generator to construct grammar (voice directory) and also link entries to each other as required as taught by Jones in order to "enable the mobile professional to access data from virtually any location, such as via a wireless phone" (Jones, col. 1, ll. 50-52), and "enable users to access a wide variety of different data types from a telephone, whereby the user could perform ad hoc queries and access user- or company-specific information that has been stored in a database by the user or others known to the user rather than an institution that maintains the database" (Jones, col. 1, ll. 64-col. 2, ll. 2), and enable "a user of a phone 10 to access data stored in a CRM database 12 from a remote location using verbal commands" (Jones, col. 5, ll. 13-15) so that "Users may

also interactively initiate a phone call to selected contacts, accounts, and/or employees through the system while participating in a user session" (Jones, col. 2, ll. 48-51).

Allowable Subject Matter

9. Claims 1-9, 11-13, 31-34 are allowed.

For Independent Claim 1, Crockett teaches of a system of a voice activated auto-attendant service provider network including an enterprise voice directory, a database of voice directory grammars, and a media gateway having a telephony interface and a data interface (Fig. 1, item 40 VXML platform with VXML interpreter 42, Speech objects 46 and Document/application server 47 with subscriber specific voice directory of menus, forms, instructions; Paragraph 0099, communication between calling party and VXML platform enabled and controlled by VXML interpreter 42);

Brown teaches of voice-operated system wherein data connectors (Fig. 2, item 110 with item 112; col. 3, ll. 39-52; connectors for HTML, PML) receive enterprise data format from an enterprise data repositories (col. 3, ll. 33-35, 43-52) and convert it to internal format (col. 3, ll. 39-42; output of parser) suitable to construct voice directory (col. 3, ll. 60-64), and a grammar generator (data processor; Fig. 2, item 120) coupled to the voice directory (col. 6, ll. 8-18) and coupled to a data connector (Fig. 2, items 110 with item 112) constructs the grammar (voice directory) from the common data format (output of parser) (col. 3, ll. 60-64; col. 5, ll. 60-col. 6, ll. 18; col. 6, ll. 30-40; construct grammar from the output of parser) (col. 11, ll. 59-col.13, ll. 36).

Crocket and Brown do not teach the functions of encrypting the XML-based files using encryption key issued by the voice activated auto-attendant service provider network, store the encrypted XML-based files accessible to the voice activated auto-attendant service provider network, and creating the enterprise voice directory based on the encrypted XML-based files so that the voice directory is accessible by the voice activated auto-attendant service provider network during run-time.

The remaining prior art of record do not teach or fairly suggest substantially modifying Crockett and Brown with these specific features in order to arrive at the invention as claimed in detail by the applicant.

Claims 2-9, 11-13, 31-34, they depend on allowable claim 1.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hemant Patel whose telephone number is 571-272-8620. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hemant Patel
Examiner
Art Unit 2614

HSP
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